

CLAIMS

What is claimed is:

- 5 1. An assay for assessing the risk for developing or having substance dependency comprising screening means for screening samples for the OPRM1 +118A allele, the presence of the allele indicating a risk of developing substance dependency.
- 10 2. The assay of claim 1, wherein screening means is genotyping means.
3. The assay of claim 2, wherein said screening means is phenotyping means.
- 15 4. The assay of claim 2, wherein samples include tissues sample including peripheral blood.
5. The assay of claim 1, wherein substance is alcohol.
- 20 6. The assay of claim 1 wherein substance is nicotine.
7. The assay of claim 1 wherein substance is cocaine.
8. The assay of claim 1 wherein substance is marijuana.
- 25 9. A method for estimating substance dependency comprising screening samples for the OPRM1 +118A allele, the presence of the allele indicating an increased risk for substance dependence.
- 30 10. The method of claim 9, wherein screening step includes genotyping using +118A/G OPRM1 restriction fragment length polymorphism.
11. The method of claim 10, wherein said screening step includes screening

tissue samples.

12. The method of claim 10, wherein said screening step includes screening peripheral blood.

5

13. The method of claim 9, wherein said screening step screens for diagnosing a substance dependency wherein the substance is alcohol.

14. The method of claim 9, wherein said screening step screens for diagnosing a substance dependency wherein the substance is nicotine.

10

15. The method of claim 9, wherein said screening step screens for diagnosing a substance dependency wherein the substance is cocaine.

15

16. The method of claim 9, wherein said screening step screens for diagnosing a substance dependency wherein the substance is marijuana.

20

17. A marker for determining the risk of developing substance dependency comprising the OPRM1 +118A allele indicating the risk for developing substance dependency.

18. The marker of claim 17, wherein the substance is alcohol.

19. The marker of claim 17, wherein the substance is cocaine.

25

20. The marker of claim 17, wherein the substance is marijuana.